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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,739

10/20/2005

Hideyuki Okuma

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07/08/2008

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EXAMINER

TRAN, TRANG U

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

07/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/553,739

Applicant(s)

OKUMA, HIDEYUKI

Examiner

Trang U. Tran

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 2-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipate by Mizukami et al. (US Patent No. 5,956,098).

In considering claim 1, Mizukami et al discloses all the claimed subject matter, note 1) the claimed an analog/digital-compatible front-end module capable of receiving analog television broadcast and digital television broadcast, the analog/digital compatible front-end module comprising a high frequency amplifier 9 for amplifying a high frequency signal received by an antenna 1 is met by the variable gain amplifier 30

(Fig. 7, col. 9, lines 1-65), 2) the claimed a frequency converter circuit for frequency-converting an output signal from the high frequency amplifier 9 to output an intermediate frequency signal is met by the frequency converters 40 and 70 (Fig. 7, col. 9, lines 1-65), 3) the claimed an analog demodulator 5 for receiving analog television broadcast is met by the NTSC signal demodulator 291 (Fig. 7, col. 9, lines 1-65), 4) the claimed a digital demodulator 6 for receiving digital television broadcast is met by the high definition TV signal demodulator 290 (Fig. 7, col. 9, line 1 to col. 10, line 14), 5) the claimed analog/digital switching means for selectively feeding an output signal from the frequency converter circuit to the analog demodulator 5 or to the digital demodulator 6 is met by the switching 320 (Fig. 7, col. 8, line 56 to col. 10, line 14), and 6) the claimed gain control switching means for controlling gain of the high frequency amplifier 9 in accordance with a gain control signal obtained from the analog demodulator 5 during an analog broadcast reception, while controlling gain of the high frequency amplifier 9 in accordance with a gain control signal produced from the output signal from the frequency converter circuit during a digital broadcast reception is met by the AGC change-over switch 320 which supplies the gain control signal to control the variable gain amplifier 30 via the AGC change-over switch 250 (Fig. 7, col. 8, line 56 to col. 10, line 14).

In considering claim 3, the claimed wherein the frequency converter circuit comprises an intermediate frequency amplifier 14 for amplifying the intermediate frequency signal frequency-converted, and during the digital broadcast reception an output signal from the intermediate frequency amplifier 14 is detected and selected by

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the gain control switching means, and is fed for gain control of the high frequency amplifier 9 is met by the amplification and smoothing circuit 260 which forms a gain control signal to control the variable gain amplifier 30 (Fig. 7, col. 9, line 1 to col. 10, line 14).

In considering claim 4, the claimed wherein the gain control switching means comprises a signal switch 7 for selecting the gain control signal produced from the output signal from the frequency converter circuit or the gain control signal obtained from the analog demodulator 5 to feed the selected signal to the high frequency amplifier 9 is met by the AGC change-over switch 320 which supplies the gain control signal to control the variable gain amplifier 30 via the AGC change-over switch 250 (Fig. 7, col. 8, line 56 to col. 10, line 14).

Claim 5 is rejected for the same reason as discussed in claim 3.

Claim 6 is rejected for the same reason as discussed in claim 4.

Claim 7 is rejected for the same reason as discussed in claim 4.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizukami et al. (US Patent No. 5,956,098) in view of the admitted prior art (Fig. 2, pages 2-4 of the Specification).

In considering claim 2, Mizukami et al disclose the claimed wherein a wideband RF filter is interposed between the high frequency amplifier 9 and the frequency converter circuit is met by the BPF 50 (Fig. 7, col. 8, line 56 to col. 10, line 14). However, Mizukami et al explicitly do not disclose the claimed an IF filter with a narrower band than that of the RF filter is interposed between the frequency converter circuit and the analog/digital switching means. The admitted prior art (Fig. 2, pages 2-4 of the Specification) teaches that gain control (AGC) of the high frequency amplifier 9 is performed based on the intermediate frequency signal that has passed through the surface acoustic wave filter 3 with narrow band, so that the AGC control accurate to a desired wave is realized. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the narrow band filter as taught by the admitted prior art (Fig. 2, pages 2-4 of the Specification) into Mizukami et al's system in order to accurately generating the AGC control signal to a desired wave.

In considering claim 5, the claimed wherein the frequency converter circuit comprises an intermediate frequency amplifier 14 for amplifying the intermediate frequency signal frequency-converted, and during the digital broadcast reception an output signal from the intermediate frequency amplifier 14 is detected and selected by the gain control switching means, and is fed for gain control of the high frequency amplifier 9 is met by the amplification and smoothing circuit 260 which forms a gain control signal to control the variable gain amplifier 30 (Fig. 7, col. 9, line 1 to col. 10, line 14 of Mizukami et al.).

In considering claim 6, the claimed wherein the gain control switching means comprises a signal switch 7 for selecting the gain control signal produced from the output signal from the frequency conveter circuit or the gain control signal obtained from the analog demodulator 5 to feed the selected signal to the high frequency amplifier 9 is met by the AGC change-over switch 320 which supplies the gain control signal to control the variable gain amplifier 30 via the AGC change-over switch 250 (Fig. 7, col. 8, line 56 to col. 10, line 14 of mizukami et al.).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mayer (US Patent No. 7,239,358 B1) discloses television receiver for digital signals with offset tuning provisions.

Grubbs et al. (US Patent No. 7,202,910 B1) disclose signal processing apparatus.

Yanagi et al. (US Patent No. 6,678,011 B2) disclose fronted circuit.

Raiser (US Patent No. 6,622,308 B1) discloses automatic digital television (DTV) bypass for a CATV converter using a CATV tuner.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (571) 272-7358. The examiner can normally be reached on 9:00 AM - 6:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N. Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 03, 2008

/Trang U. Tran/
Primary Examiner, Art Unit 2622